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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,931	09/15/2003	Hisham Menkara	090503	8402

7590 04/25/2005

Christopher J. Whewell
Western Patent Group
6020 Tonkova Trail
Georgetown, TX 78628

EXAMINER

HODGES, MATTHEW P

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 04/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

10/661,931

Applicant(s)

MENKARA ET AL.

Examiner

Matt P. Hodges

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-10, 12-17 and 19-34 is/are rejected.
- 7) ☒ Claim(s) 4, 11 and 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/15/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 8, 9, 10, 12, 14, 15, 16, 17, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Fischer (US 4,263,339)

Regarding claims 8, 9, 10, 12, 14, 15, 16, 17, and 19, Fischer discloses the use of light emitting device including a white emitting mixture of ZnS:Cu, Al and ZnS_{0.2}Se_{0.8}:Cu, AL. (Column 4 lines 19-32). The copper and aluminum are doped in concentrations of 1 mol percent and 0.1 mol percent respectively. (Column 5 lines 20-27)

Claims 8, 9, 12, 13, 21, 22, 27, 28, and 32-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsubara et al. (US 6,509,651)

Regarding claims 8, 9, 12, 13, 21, 22, 27, 28, and 32-34, Matsubara discloses the use of white light emitting diode including an active layer of ZnSe:Cu, I. (Column 7 lines 25-44) and (Column 8 lines 20-40). The copper and iodine are doped in concentrations of $1 \times 10^{17} \text{ cm}^{-3}$ or around 0.0003 mol percent. (Column 14 lines 62-67).

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Claims 1, 2, 5, and 6, are rejected under 35 U.S.C. 102(b) as being anticipated by Larach. (US 2,742,376)

Regarding claims 1, 2, 5, and 6, Larach discloses the use of phosphor including one of ZnSe:Cu and ZnS_{0.1}Se_{0.9}:Cu. (Column 3 lines 1-11). The copper is doped in concentrations of 0.01 mol percent.

Claims 1-3, 7-10, 14-17, and 20-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Bokor et al. (US 2004/0056256 A1)

Regarding claims 1-3, 7-10, 14-17, and 20-34, Bokor discloses the use of light emitting device including a white emitting mixture of ZnS:Cu and ZnS:Cu, Al. (Page 3 Paragraph 030) and (Table 4). The copper and aluminum are doped in concentrations of 5 mol percent. (Page 3 Paragraph 020).

Allowable Subject Matter

Claims 4, 11, and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 4, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 4, and specifically comprising the limitation of a phosphor composition of ZnS_xSe_y:Cu where $0 \leq x \leq 0.5$ and $0 \leq y \leq 0.5$.

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Regarding claim 11, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 11, and specifically comprising the limitation of a phosphor composition of $\text{ZnS}_x\text{Se}_y\text{:Cu}$ where $0 \leq x \leq 0.5$ and $0 \leq y \leq 0.5$.


Regarding claim 18, claim 18 is allowable for the reasons given in claim 11 because of its dependency status from claim 11.

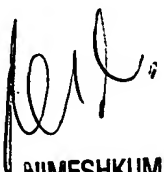
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matt P Hodges whose telephone number is (571) 272-2454. The examiner can normally be reached on 7:30 AM to 4:00 PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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NIMESHKUMAR D. PATEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800